

## REMARKS

Prior to this Office Action, the Examiner restricted the Applicant's claims to four separate inventions. The Applicant responded by electing claims 7 – 14 and 23 – 25 under category II and *withdrawing* claims 1 – 6, 15 – 22, and 26 – 37 (i.e., categories I, III, and IV). The Applicant intended to *cancel* claims 1 – 6, 15 – 22, and 26 – 37 to avoid additional claim fees being assessed. Accordingly, the Applicant herein cancels claims 1 – 6, 15 – 22, and 26 – 37 and requests a refund pursuant to 35 U.S.C. § 41(a)(2)(C) for claims 38 – 54 added in the response to the restriction requirement. Claims 38 – 54 resulted in additional claim fees of \$725. Please credit this refund to Deposit Account No. 50-1419.

In the Office Action, the Examiner objected to claims 7, 42, and 46 for various informalities. The Applicant has amended these claims to correct the informalities, thereby tending to the Examiner's objections. Additionally, the Examiner rejected claims 7 - 10, 12 - 14, 23 - 25, and 38 - 54 under 35 USC § 103(a) as being unpatentable over Zubeldia (US Patent 6,397,224) in view of Gasch ("0.2.7.5. One-way hashing", 7/9/1999 pages 1 - 8, as obtained from <http://www.fearme.com>), Schneier ("Applied Cryptography", second edition, 1996, pages 429 - 431), and Halamka ("Managing Care in an Integrated Delivery System via an Intranet", 1998 pages 1 - 5, as obtained from <http://www.amia.org>). With respect to these rejections, the Applicant respectfully traverses and submits the following arguments in support of patentability.

### Claim 14

The Examiner rejected claim 14 over Zubeldia in view of Gasch, Schneier, and Halamka. The Applicant respectfully traverses the rejection because, among other reasons, the cited references do not teach all of the Applicants claimed limitations as required by § 103(a).

In claim 14, the Applicant claims a method for de-identification of records by a programmed client computer. The method includes, among other things, formatting personal identification data fields, selecting at least a portion of the personal identification data fields formatted, deleting any of the personal identification data fields not selected, determining if the personal identification data fields selected are to be encoded, and encoding the personal identification data fields to be encoded. Additionally, claim 14 recites concatenating the personal identification data fields encoded with a seed value to provide seed value identifiers, first one-

way encrypting the seed value identifiers with a first encryption algorithm, second one-way encrypting the seed value identifiers with a second encryption algorithm, and concatenating at least a portion of each one-way encryption result from the first one-way encrypting and the second one-way encrypting corresponding to the seed value identifiers to respectively provide binary strings for each of the seed value identifiers. Moreover, the claim recites converting the binary strings to alphanumeric strings to provide match codes wherein de-identified records comprising the match codes are created at the programmed client computer prior to transmission to a server computer.

The Examiner states that Zubeldia teaches roughly all of the Applicant's claim elements except for concatenating. The Applicant respectfully disagrees because, among other reasons, Zubeldia does not teach encoding the personal identification data fields prior to one-way encryption. Rather, Zubeldia teaches only first and second one-way encryption. The Applicant claims first and second one-way encryption, but the Applicant also claims a step of encoding prior to the first and second one-way encryptions. Such was discussed in a telephone conversation with the Examiner on Friday, February 24, 2006 in which the Examiner initially agreed that Zubeldia does not appear to teach encoding any type of personal identification data field prior to encryption.

Also discussed in the telephone conversation was concatenating the personal identification data fields with a seed value to provide seed value identifiers. The Examiner stated in his rejection that Gasch teaches such. Again, the Applicant respectfully disagrees because, among other reasons, Gasch teaches using a seed value in a hash function to generate a hash value. That hash value is concatenated with a block of data that is input into the hash function again. This process continues, presumably, until there is no more data to push through the hash function. This differs from the Applicant's claim because, among other reasons, Gasch does not teach concatenating a seed value to a personal identification data field (e.g. a block of data) prior to pushing the concatenated personal identification data field through a hash function.

Additionally mentioned in the telephone conversation was the Applicant's claim element of concatenating at least a portion of each one-way encryption result from the first one-way encrypting and the second one-way encrypting corresponding to the seed value identifiers to respectively provide binary strings for each of the seed value identifiers. The Examiner stated in

his rejection, that Schneier teaches such. Again, the Applicant respectfully disagrees because, among other reasons, Schneier teaches generating a hash value and concatenating that hash value to a message then pushing they concatenated message through a hash function to generate a larger hash value. This process continues as desired, but nowhere does Schneier teach a step of using the results of first and second one-way encryptions for concatenation to one another in a manner that is similar to that which the Applicant claims.

Moreover, the phone conversation with the Examiner included discussion of the Applicant's claim element of deleting any of the personal identification data fields not selected with respect to Zubeldia. The Examiner stated in his rejection that Zubeldia taught such; however, the Applicant again respectfully disagrees. For example, Zubeldia does not teach deleting personal identification data fields prior to one-way encryption. Rather, Zubeldia teaches first and second one-way encryption wherein the data fields are deleted upon encryption. Additionally, Zubeldia teaches that all of the data fields are deleted as opposed to a selected portion, as the Applicant claims (see e.g., column 7, lines 50 – 55; column 9, lines 5 - 10, and Figure 3 of Zubeldia).

Additionally, the Applicant does not believe there is a motivation to combine Zubeldia with Gasch because, among other reasons, the web site in which Gasch was listed states that the Examiner's referenced section still needs work and that the "encryption section is not well written at all". Additionally, it is conceivable that the algorithm is inoperable based on the statements listed at <http://www.fearme.com/misc/alg> (e.g., "Scott didn't think it was useful anymore but I liked it even though its broken"). The Examiner stated that "broken" meant that the hash algorithm had essentially been "hacked". Regardless of the meaning, it does not appear to provide any motivation or suggestion to combine with Zubeldia. The word "broken" simply underscores the reasons for avoiding such a combination.

For at least the reasons stated hereinabove, Zubeldia, Gasch, and Schneier, either alone or in combination, do not teach all of the claim elements of the Applicant's claims as required by § 103(a). Accordingly, the Applicant respectfully requests reconsideration and allowance of claim 14.

Claims 7 - 13

The Examiner rejected claim 7 for the same reasons recited in claim 14 stating that claim 7 is broader than claim 14. In claim 7, the Applicant recites, among other things, deleting any of the personal identification data fields not selected and one-way encrypting the selected personal identification data fields. As stated hereinabove, the Applicant respectfully disagrees with the Examiner's rejection that Zubeldia teaches such because, among other reasons, Zubeldia does not teach deleting personal identification data fields prior to one-way encryption. Rather, Zubeldia teaches first and second one-way encryption wherein the data fields are deleted upon encryption. Additionally, Zubeldia teaches that all of the data fields are deleted as opposed to a selected portion, as the Applicant claims (see e.g., column 7, lines 50 – 55; column 9, lines 5 - 10, and Figure 3).

For at least these reasons, Zubeldia, Gasch, and Schneier, either alone or in combination, do not teach all of the claim elements of the Applicant's claims as required by § 103(a). The Applicant, therefore, respectfully requests reconsideration allowance of claim 7.

Claims 8 - 13 depend from claim 7 and inherit all of the novel and nonobvious features of the independent claim. However, these claims require additional novel and nonobvious features not recited in the independent claim. For example, claim 9 includes encoding selected personal identification data fields. As stated in the arguments for allowance of claim 14, Zubeldia does not teach encoding data fields prior to one-way encryption. Additionally, claim 10 requires concatenating the personal identification fields with a seed value to provide seed value identifiers. As stated in the arguments for allowance of claim 14, Gasch does not support Zubeldia to teach the Applicant's claim element. For at least these reasons, Zubeldia, Gasch, and Schneier, either alone or in combination, do not teach all of the claim elements of the Applicant's claims as required by § 103(a). As such, the Applicant respectfully requests reconsideration and allowance of claims 8 - 13.

#### Claim 23

The Examiner rejected claim 23 for the same reasons recited in claim 14 stating that claim 23 is broader than claim 14. Claim 23 recites a computer readable media containing a program which, when executed by a programmed client computer, causes execution of a method that includes, among other things, the steps of deleting any of the personal identification data

fields not selected and one-way encrypting the selected personal identification data fields. For the reasons described in any arguments for allowance of claim 14, the Applicant believes claim 23 is in condition for allowance. As such, the Applicant respectfully requests reconsideration and allowance of claim 23.

#### Claims 24 and 25

The Examiner rejected claim 24 for the same reasons recited in claim 14 stating that claim 24 is a signal bearing medium claim that corresponds to method claim 14 and is rejected for the same reasons. The Applicant has amended claim 24 to recite a computer readable medium to tend to the Examiner's objections as described hereinabove. Claim 24 is of a similar scope with respect to claim 14. The reasons stated in claim 14 apply herein as well. Accordingly, the Applicant believes claim 24 is in condition for allowance and respectfully requests such disposition.

Claim 25 depends from claim 24 and inherits all of the novel and nonobvious features of the independent claim. However, claim 25 requires additional novel and nonobvious features that further distinguish from the cited references. For at least these reasons, the Applicant believes claim 25 is in condition for allowance and respectfully requests such disposition.

#### Claims 38 - 46

The Examiner rejected claim 38 for the same reasons recited in claim 14 stating that claim 38 is broader than claim 14. Claim 38 recites, among other things, deleting a first portion of parsed personal identification data fields and one-way encrypting a second portion of the parsed personal identification data fields to generate one or more the identified records. As described hereinabove, Zubeldia, Gasch, and Schneier, either alone or in combination, do not teach deleting prior to encryption as the Applicant claims. As such, the cited references do not teach or reasonably suggest that which the Applicant claims as required by § 103(a). For at least these reasons, claim 38 is in condition for allowance. The Applicant respectfully requests such disposition.

Claims 39 - 46 depend from claim 38 and require additional features that further distinguish from the cited references. For at least these reasons, claims 39 - 46 are also in

condition for allowance. The Applicant, therefore, respectfully requests such disposition.

#### Claims 47 - 53

The Examiner rejected claim 47 for the same reasons recited in claim 14 stating that claim 47 is broader than claim 14. In claim 47, the Applicant recites a system for the identifying records that includes a client computer which, among other things, deletes at least a portion of the personal identification data fields and encrypts the remaining personal identification data fields to generate encrypted personal identification data fields. As such, encryption is performed after deletion as similarly argued in support of allowance for claim 14. In this regard, the Applicant believes claim 47 is also in condition for allowance and respectfully requests such disposition.

Claims 48 - 53 depend from claim 47 and inherit all of the novel and nonobvious features of the independent claim. However, claims 48 - 53 require additional features that further distinguish from the cited references. For example, claims 50 and 51 recite first and second one-way encryptions that are performed after deletion of at least a portion of the personal identification data fields. Zubeldia teaches encoding first and second identity references prior to removing identifying elements from a data record (see e.g., Figure 3). Additionally, claim 52 recites concatenating results of the first and second encryptions to respectively provide binary string identifiers for the personal identification data fields. The Examiner stated that such is taught in Schneier. As stated in the arguments for allowance of claim 14, Schneier does not teach concatenating encryption results together. For at least these reasons, claims 50 - 53 are novel and nonobvious in view of the cited references and are in condition for allowance. In this regard, the Applicant respectfully requests such disposition.

#### Claim 54

Claim 54 recites a system for de-identification of records comprising means of a similar scope recited in claim 38. The arguments in support of allowance for claim 38 apply herein as well. As such, the Applicant believes claim 54 is in condition for allowance and respectfully requests such disposition.

CONCLUSION

In view of the above, the Applicant believes that all claims are in condition for allowance and respectfully requests such disposition. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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Date: February 27, 2006